

REMARKS

The Action rejects claims 18–20, 23–26, 37–39, and 41–43 under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement. In Applicants' Response dated August 17, 2010 (the "Response"), Applicants argued that the claims are fully enabled. At pages 10–11, Applicants cited to certain studies performed at INSERM as support for the arguments that the claims are enabled. The Declaration describes those studies that were cited by Applicants.

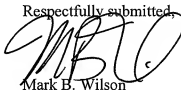
The studies were performed to compare the anti-apoptotic activity of a polypeptide having amino acids 36–175 of the hepatocarcinoma-intestine-pancreas/pancreatitis-associated protein (HIP/PAP), called 36–175 HIP/PAP, to the biological activity of a polypeptide having amino acids 27–175 of HIP/PAP, called 27–175 HIP/PAP. Declaration at ¶ 2. The data obtained demonstrate that a polypeptide that meets the sequence limitation of the claim—*i.e.*, it comprises a sequence having at least 90% identity to amino acids 27–175 of SEQ ID NO:1—is likely to possess the required anti-apoptotic activity.

To study the anti-apoptotic activity of the HIP/PAP polypeptides (also called ALF-5755 in the report attached to the Declaration as Exhibit 2), a caspase 3 inhibition test was performed to evaluate the ability of the HIP/PAP polypeptides to inhibit apoptosis in rat hepatocytes in primary culture after the hepatocytes had been stimulated to undergo apoptosis. Declaration at ¶ 3. The results showed that the anti-apoptotic activity of 36–175 HIP/PAP was as high as that of Met-27–175 HIP/PAP in rat hepatocyte primary cultures. Declaration at ¶ 11. The IC_{50} values for the two proteins were comparable (264 and 238 ng/mL, respectively) with widely overlapping intervals of confidence (175–399 and 139–410 ng/mL respectively). Declaration at ¶ 11. In other words, the IC_{50} values of the two HIP/PAP polypeptides were not significantly different. Declaration at ¶ 11.

Thus, 36–175 HIP/PAP, a polypeptide having 93.9% identity to amino acids 27–175 of HIP/PAP, exhibited the same anti-apoptotic activity as a polypeptide having almost 100% identity to amino acids 27–175 of HIP/PAP (*i.e.*, Met-27–175 HIP/PAP, which has 99.3% identity to amino acids 27–175 of HIP/PAP). In other words, the deletion of 10 amino acids of the Met-27–175 HIP/PAP form that provides the 36–175 HIP/PAP results in *no change* in the biological activity of the protein. Thus, Applicants submit that the claims are enabled for at least the following reason: one of ordinary skill in the art would understand that a polypeptide comprising an amino acid sequence that has at least 90% identity to the recited portion of SEQ ID NO:1 would likely retain anti-apoptotic activity, as required by the claims.

The Examiner is invited to contact the undersigned (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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